

REMARKS

Favorable reconsideration of this application is respectfully requested.

Claims 28-54 are pending in this application. Claims 28, 29, 31, 32, 34, 38, 39, 41, 42, 44, 46, 48, 49, and 51 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. patent 7,215,634 to Van Woudenberg (herein "Van Woudenberg '634'"). Claims 30, 33, 35-37, 40, 43, 47, 50, and 52-54 were rejected under 35 U.S.C. § 103(a) as unpatentable over Van Woudenberg '634 in view of U.S. patent 6,724,707 to Van Woudenberg et al. (herein "Van Woudenberg '707'"). The above-noted rejections are traversed by the present response as discussed next.

Applicants respectfully submit the outstanding rejections are not fully considering the claimed features and are misconstruing the disclosures in at least Van Woudenberg '634 relative to the claimed features. Specifically, each of the claims recites that blocks of data have buffer areas of a ***fixed length*** before and after such blocks, and such ***fixed length buffers*** from one to a next block overlap ***with each other***, which are not met by Van Woudenberg '634.

As shown for example in Figure 1 in the present specification, when writing a new block BLK relative to an existing preceding block BLK1, the buffer areas DRi and DRo precede the blocks BLK and BLK1, respectively. Similarly, for the block BLK2 buffer areas DRi and DRo precede and follow that block. As clear from Figure 1 the start point of the buffer area DRi before the block BLK is not fixed relative to the existing block BLK1, but can be varied. As also shown in Figure 1 the start point of buffer area DRi for block BLK is shifted, and the amount of the shift can vary for the different blocks, as also shown in Figure 1 for the next block BLK2 as its preceding buffer DRi is shifted a less amount than the buffer DRi for the block BLK. Further, the buffers DRi and DRo that ***overlap with each other*** have a ***fixed length***, as also shown in Figure 1.

Thereby, according to the claimed invention a start point of writing of a data pattern can be changed. Further, a length of a run-in buffer area is fixed. Such features are believed to clearly distinguish over the applied art.

Applicants respectfully submit the outstanding rejection is misunderstanding the disclosure in Van Woudenberg '634 as Van Woudenberg '634 does not disclose or suggest that blocks have buffer areas of a ***fixed length*** before and after the blocks and also ***overlap with each other***.

The basis for the outstanding rejection at certain point cites Figure 7 in Van Woudenberg '634, particularly to disclose buffer areas corresponding to the claimed features, citing buffer areas PoA, G2, G1, PrA, but the Office Action also cites the disclosure in Van Woudenberg '634 at column 7, lines 49-67 to disclose a fixed buffer length with a length of a run-in/run-out guard field being set. That disclosure in column 7, lines 49-67 of Van Woudenberg '634, however, is directed to a different embodiment in Figure 2 thereof that does ***not include all the noted buffer layers PoA, G2, G1, PrA***.

In further detail, the outstanding Office Action now states in the "Response to Arguments" section on pages 6-7 that Van Woudenberg '634 discloses a fixed length buffer at column 7, lines 49-67, specifically noting that section in Van Woudenberg '634 discloses "the length of the run-in/run-out guard field is set".¹

Applicants note that disclosure in Van Woudenberg '634 is specifically directed to the embodiment in Figure 2 therein, reprinted below. The passage explaining Figure 2 in Van Woudenberg '634 in its entirety, states as follows:

FIG. 2 shows a recording scheme of the lower information layer 8 and the upper information layer 6, according to; e.g., the DVR format, comprising rewritable user data areas, a run-out guard field, a ***run-out gap, a header area, a ***run-in gap*** and a run-in guard. It should be noted that in FIG.***

¹ Office Action of April 17, 2008 specifically the sentence bridging pages 6 and 7.

2, the preamble PrA and the postamble PoA are not indicated for reasons of simplicity. As can be gathered from FIG. 2, a minimum allowed misalignment is defined between the header areas of the upper information layer 6 and the lower information layer 8. Furthermore, a beam shape of a reading or writing beam is indicated in the left portion of the diagram, wherein the arrow above the upper information layer 6 indicates the scanning direction. The length of the run-out guard field and the run-in guard field is set or selected so that the area through which the beam passes in the upper information layer 6 is of a uniform nature (i.e., all written data, no header and no unwritten data) within the beam diameter when focusing on the deepest or lower information layer 8. Preferably, the length of the run-out gap and the run-in gap in the upper information layer 6 is chosen such that the phase change data in the upper information layer 6 is not "seen" anymore by the read-out beam when reading the header in the second information layer 8. However, this requirement regarding the length of the gaps is not a strict requirement, since the header area is designed very robustly, and the header detection is not expected to deteriorate much when the signal level (light intensity) is slowly laying. [Emphasis added].

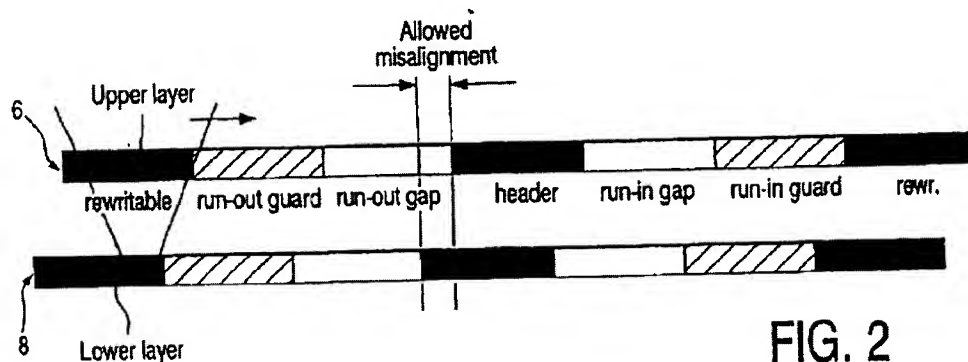


FIG. 2

From the above-noted passage and Figure 2 which the passage describes, it is clear the noted disclosure in Van Woudenberg '634 is directed to an embodiment that includes both a *run-in gap and run-out gap*. In that embodiment in Van Woudenberg '634 no fixed length buffer provided with respect to a new block overlaps with the fixed length buffer with respect to an existing block. The claims are directed to *fixed length buffers that overlap with each other*, which is clearly not the case in the embodiment at Figure 2 in Van Woudenberg '634 cited in the Office Action to disclose a fixed length buffer.

Moreover, the outstanding Office Action also cites Figure 7 in Van Woudenberg '634 with respect to the claimed features, which again is reprinted below.

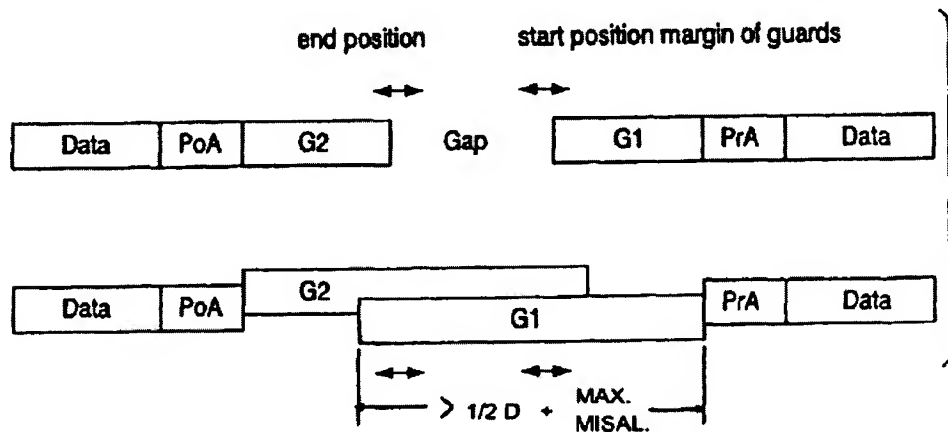


FIG. 7

As clear from Figure 7 of Van Woudenberg '634, the embodiment therein discloses buffer areas G2, G1 that overlap with each other. However, the embodiment in Figure 7 of Van Woudenberg '634 clearly does *not* disclose such buffer areas G2, G1 to have a fixed length. The outstanding Office Action also does not point to any disclosure with respect to Figure 7 in Van Woudenberg '634 that would teach or suggest that the buffer areas G1 or G2 have a fixed length.

In fact, the outstanding Office Action itself at one point appears to recognize such deficiencies in Van Woudenberg '634 as the Office Action itself recognizes that dummy data is added to the guard fields G1 and G2 that overlap each other, citing Van Woudenberg '634 at column 9, lines 25-39. As clear from that disclosure in Van Woudenberg '634, however, those guard fields G1 and G2 that overlap with each other do *not have a fixed length*.

In fact Van Woudenberg '634 appears to disclose just the opposite, namely that the length of the guard fields G1 and G2 can be *changed so as to realize an appropriate overlapping*.

In further detail, Van Woudenberg '634 expressly states a method for writing data on a disk includes:

. . . c) a setting step for ***setting the lengths of said first and of said second guard field*** such that the end position of said second guard field of a preceding data block is located within the area of said first guard field of the succeeding data block.²

Van Woudenberg '634 further states:

Accordingly, by ***setting*** the length of the first and second guard fields such that the end position of the second guard field of a preceding data block is located within the area of the first guard field of the succeeding data block, the gap portion between neighboring data clusters or data blocks is prevented.³

Van Woudenberg '634 further states:

In particular, the ***time for supplying the dummy data of the guard fields G1 and G2 to the scanning device 10 is increased in such a manner that the length of the guard fields G1 and G2 are increased*** such that one guard field extends into the next or succeeding guard field, i.e., the guard field at the end of a block succeeds into the guard field at the start of the succeeding block.⁴

From the above-noted disclosures, applicants respectfully submit it is clear the device in Van Woudenberg '634 can ***vary*** the length of the guard portions G1 and G2 to ensure that they overlap. Van Woudenberg '634 achieves that result by changing the amount of time for supplying dummy data of the guard fields G1 and G2. Van Woudenberg '634 clearly indicates the lengths of such guard fields G1 and G2 should be set so that no gap exists therebetween.

Thereby, from the above-noted disclosures in Van Woudenberg '634 the noted buffer areas G1 and G2 that precede and follow blocks and ***overlap with each other are not of a fixed length.***

² Van Woudenberg '634 at column 4, lines 49-53 (emphasis added).

³ Van Woudenberg '634 at column 4, lines 56-61 (emphasis added).

⁴ Van Woudenberg '634 at column 9, lines 32-38 (emphasis added).

In contrast to Van Woudenberg '634, in the claims as written “buffer areas having a *fixed length* for random access are respectively disposed before and after respective blocks” and “*overlap with each other*”, (emphasis added) as specifically recited in independent claim 28, and as similarly recited in the other independent claims. Van Woudenberg '634 does not disclose or suggest such features.

In summary, the outstanding Office Action appears to now be attempting to combine two different disclosures in Van Woudenberg '634 that are not related to each other in the manner suggested in the Office Action. The disclosure in Figure 2 of Van Woudenberg '634 that the Office Action cites to have buffer areas of fixed length is *not* directed to buffer areas overlapping each other, and thus does not correspond to the claimed features. An unrelated disclosure in Van Woudenberg '634 is set forth in Figure 7 in which the guard areas G2, G1 do overlap with each other. However, those areas G2, G1 in Van Woudenberg '634 also do not correspond to the claimed features as those areas G2, G1 do *not* have a fixed length. The outstanding Office Action is misconstruing Van Woudenberg '634 relative to the claims as written as no disclosure in Van Woudenberg '634 meets all the claim limitations.

In such ways, each of the claims as currently written is believed to clearly distinguish over Van Woudenberg '634.

Moreover, no teachings in Van Woudenberg '707 cure the above-noted deficiencies in Van Woudenberg '634. In that respect, and as discussed in prior responses, Van Woudenberg '707 also does not disclose or suggest the above-noted feature that “buffer areas having a fixed length or random access are respectively disposed before and after respective blocks”.

In view of the foregoing comments, applicants submit the claims as currently written clearly distinguish over the applied art.

As no other issues are pending in this application, it is respectfully submitted that the present application is now in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

Respectfully submitted,

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Customer Number

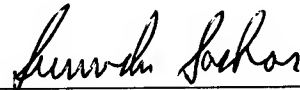
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